

ABSTRACT

5 The invention relates to a method for producing semiconductor substrates by
bonding. The aim of said method is to reduce the non-usable edge region (5) on the
bonded wafer component and to improve the edge geometry (7, K) of the wafer
composite. This is achieved by a method for joining two semiconductor wafers (1,
10 10) using a semiconductor wafer bonding process (1, 4, 10). The surfaces of the two
semiconductor wafers (1, 10) that are to be bonded are provided with a border or
edge geometry (7) that has a special short front-end facet (3a, 3b, L2). After the
bonding process, one (1) of the two wafers is ablated to obtain an edge region (7; K)
that is as devoid as possible of defects and a usable wafer surface that is as large
as possible.